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ABSTRACT

Research on quality assurance (QA) in vocational education and training (VET) in Australia over the past 6 years was reviewed. Three factors responsible for growing interest in QA were identified: close connections with industry sectors that have gained from the introduction of QA measures; the more competitive training market that has been increasingly encouraged by governments in Australia; and increasing community demand for quality as course fees increase. According to two substantial studies of QA systems in selected organizations for the purpose of facilitating the introduction of QA systems into the VET sector, the following types of QA programs may be relevant to VET: total quality management; QA based on international standards; quality matrix; best practice and benchmarking; and self-managed teams. The available research suggests that the following issues must be addressed in implementation of QA in the VET sector: personnel requirements; proper planning processes; staff development programs; industry relations and human resources management issues; ascertainment of customer views and needs; and roles of monitoring, assessment, and evaluation procedures. The available VET case studies indicate that the main problem with whole organization quality initiatives is the difficulty of getting started on an organization-wide basis. (Contains 34 references.) (MN)

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# Quality assurance in VET

Paul Hager

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# Quality assurance in VET

*Paul Hager*

REVIEW OF RESEARCH

1997

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# Executive summary

THIS REPORT PRESENTS an analysis of recent Australian research on quality assurance in the VET sector and provides an assessment of our current knowledge of the various facets of this topic.

## Why adopt quality assurance in VET?

Growing interest in quality assurance in the VET sector is due to various causes:

- Close connections with industry sectors that have gained from the introduction of quality assurance measures.
- The more competitive training market that has been increasingly encouraged by governments in Australia.
- Increasing community demand for quality as they pay more for courses.

A comprehensive emphasis on quality in the VET sector is a feature of recent policy and strategy documents issued by the Australian National Training Authority (ANTA). Increasingly, ANTA annual reports are featuring a range of system-wide performance measures.

However, due to the recency of adoption of quality assurance measures in the VET sector in Australia, research on this topic is very limited. The research that is available often draws on experience from other sectors with the researchers/authors looking to its possible applications to the VET sector.

## What is quality in the VET sector?

There are various approaches to implementing quality none of which is suited to all situations. Given the diversity of organisations that comprise the Australian VET sector, as well as regional and state differences, it can be expected also that there is no universal answer to the question 'what is quality in VET?'. Two substantial research projects have canvassed quality assurance systems in selected organisations for the express purpose of facilitating the

introduction of quality assurance systems into the VET sector. These projects have examined many types of quality programs and identified a number that appear to be possibly suited to the VET sector.

## Types of quality programs that may be relevant to VET

The following types of quality programs appear to be relevant to the VET sector:

- total quality management (TQM)
- quality assurance—the ISO 9001/AS 3901 standards
- the quality matrix
- best practice and benchmarking
- self-managed teams

The relevance of these types of quality program to the VET sector is more doubtful:

- the Crosby method
- process re-engineering

## Research on implementing a quality program

The available research is rather limited, but it suggests that the following issues need to be addressed in the implementation of quality assurance in the VET sector:

- personnel requirements
- proper planning processes
- staff development programs
- industrial relations and HRM issues
- ascertaining customer views and needs
- roles of monitoring, assessment and evaluation procedures

## Lessons from the VET case studies

Given the early stages of quality initiative implementation in Australian VET, the lessons that can be drawn from the research so far are relatively meagre. There are case studies of quality measures implementation for both whole institutions and for more specific programs. It appears that self-managed teams are suited to some parts of the VET sector. Perhaps the main lesson from the whole organisation quality initiatives is the difficulty of getting started on an organisation wide basis. It appears to be common for a small number of staff to have been working on a quality initiative for years without the organisation as a whole being moved very far at all.

## Findings and future research

The difficulty in drawing many definite conclusions from the VET sector research is due to a combination of three factors: the diversity of approaches to quality in the VET sector, the diversity of targets to which the quality measures have been applied and the very preliminary nature of most of the projects. The most promising quality programs for the VET sector appear to be quality assurance, best practice and benchmarking, and self-managed teams. The quality matrix and TQM are other likely possibilities. So far, there is not much sector-specific, research-based advice to guide the introduction of new quality programs.

There are no areas where it can be said that no more research is needed. However, suggested priorities include:

- ways of effectively initiating organisation wide quality initiatives in the VET sector
- 'best practice' applications of best practice and benchmarking in the VET sector
- uses of self-managing teams in the VET sector
- evaluative studies of quality initiatives in the VET sector, particularly those that have become established

# Context

QUALITY ASSURANCE IS a topic on which much has been written in recent years. Most of these writings are in favour of the adoption of some kind of quality measures (or, at least, some new and better quality measures, since it is arguable that some kinds of quality measures, however primitive, have usually been in place in many organisations). Some of these writings have been critical of proposed quality measures (or at least of particular kinds of them). However very few of them have any basis in systematic experience of implementing quality measures. Rather, they more often reflect the desire of their authors to see things change for the better. Thus, except for the most perceptive of them, these writings have no claim to be called research papers. This situation is reflected in miniature in the VET sector. A major interest in quality assurance in the VET sector has come some time after its widespread adoption in the private sector and in some other parts of the public sector. Thus research on quality assurance in the VET sector in Australia is very limited and of recent origin. The research that is available often draws on experience from other sectors with the researchers/authors looking to its possible applications to the VET sector.

The growing interest in quality assurance in the VET sector can be traced to various causes. Close connections with industry would have alerted members of the VET sector to the advantages that some parts of industry have gained from the introduction of quality assurance measures. This coupled with the more competitive training market that has been increasingly encouraged by governments in Australia, together with increasing community demand for quality as they pay more for courses, has ensured that quality assurance is now a major VET priority.



Quality is a key concept in recent policy and strategy documents issued by the Australian National Training Authority (ANTA) (e.g. 1994a, 1994b). The emphasis on quality in the VET sector is intended to be comprehensive:

> *Quality in all aspects of vocational education and training is a key objective of the National Strategy. Vocational education and training will focus on best practice and quality assurance. Staff development and management*

> *improvement will be priorities. All aspects of training design and delivery - recognition of training, accreditation, curriculum, assessment and qualifications - will be reviewed to ensure a quality service for clients.*
> (Australian National Training Authority 1994b, p. 11)

ANTA went on to devote one volume of its 1995 Annual keport to 'Benchmarking Vocational Education and Training' in Australia (Australian National Training Authority 1995). This provides a large variety of system-wide performance measures based on outcomes, outputs, and activities. Some of the performance indicators for these measures are more closely connected with quality (employer satisfaction, graduate destination) than are others (such as module load completion rate, $/Annual Hours Curriculum). While the latter are relevant to quality considerations, they need to be interpreted carefully as part of a larger story. For example, taken by itself a low $/Annual Hours Curriculum figure may be consistent both with delivery of sound quality courses or of cheap inferior courses. ANTA's approach is to gradually refine the kinds and the scope of the performance measures for annual publication (e.g. to bring private providers into the picture, to improve interstate comparative data).

# What is quality in the VET sector?

THERE IS NO one universally applicable answer to this question 'what is quality?', since quality is a function of many factors which vary with the nature of an organisation, its particular purposes, its overall philosophy, the nature of its clients, etc. Thus there are various approaches to implementing quality none of which is suited to all situations (Technical and Further Education Commission (NSW) 1994, p. 5—hereafter in this report this document is referred to as *Signposts to quality*).

Given the diversity of organisations that comprise the Australian VET sector, as well as regional and state differences, it can be expected also that there is no universal answer to the question 'what is quality in VET?'. This is the view taken by two substantial research projects that have canvassed quality assurance systems in selected organisations for the express purpose of facilitating the introduction of quality assurance systems into the VET sector. The first project is *Signposts to quality* (Technical and Further Education Commission (NSW) 1994). The second is *Quality in action* (Ball & Neville 1995).

*Signposts to quality* is an examination of ten case studies covering manufacturing and service industries, universities and TAFE colleges. All the case studies involved organisations with a customer focus. It was found that a large number of common features emerged from the ten case studies. These were grouped into twenty two 'key themes'. The reader is warned that, though the key themes reflect common experiences of the case study organisations, they should not be thought of as 'principles' since 'the approaches taken by the case study organisations have not been analysed against findings and theories presented in the literature on quality' (*Signposts to quality* p. 5).

*Quality in action* is a study of six organisations which are all acknowledged leaders in quality management and have substantial experience in one or more of four quality management approaches: quality matrix, self-managed teams, benchmarking, and re-engineering. This report groups its findings into four

chapters that deal with these approaches, including in each case a discussion of the suitability of the approach for the VET sector. What follows is a brief outline of the approaches to quality assurance dealt with by these two research reports.

The relative prominence of the various approaches in the literature on quality assurance in Australian VET will be discussed also. It should be noted that the literature review undertaken for the writing of this report did not throw up any approaches to quality assurance in Australian VET that was not amongst the ones discussed in these two research reports.

# Types of quality programs that may be relevant to VET

CONSISTENT WITH THERE being no one answer to the question 'what is quality?', there are various types of quality program available. These types of quality program vary in their relevance for VET. In the following listing only salient features of the different approaches are included, however further details can be obtained from *Signposts to quality* and *Quality in action*, as well as from other references mentioned in the outline of each type of quality program.

## Total Quality Management (TQM)

TQM, also known as continuous improvement, is 'a management approach that primarily aims to supply goods and services to an organisation's customers that are "fit for the customer's purpose", while maximising the competitiveness of the organisation. That is achieved through an organisation-wide concentration of effort on processes that add value to the customer, while eliminating all aspects that cause waste and error.' (*Signposts to quality* p. 85). McEwan and Stenson (1995) report an attempt to apply TQM to a VET sector organisation. Likewise Canberra Institute of Technology has adopted a TQM approach (*Signposts to quality* p. 25ff.). Hinchcliff (1993) offers a critique of TQM as an approach to quality assurance in educational organisations. His main critical comments centre on its top down philosophy, its claim to novelty and its focus on all aspects of an organisation. A somewhat different critique of TQM in education, from an equity perspective, is provided by Capper & Jamison (1993).



## The Crosby method

The Crosby method is a pragmatic approach to quality based on aiming for 'zero defects' in the way things are done in an organisation. As yet there appear to be no instances of this approach in the Australian VET sector.

## Quality assurance—the ISO 9001/AS 3901 standards

Quality assurance is a mechanism to enable organisations that have quality systems in operation to be able to proclaim publicly that their system is a satisfactory one. To this end, international standards have been developed.

The ISO 9001 and the AS 3901 (its Australian equivalent—see Australian/New Zealand Standard 1995) series standards represent an international consensus on principles for quality measurement. They identify twenty areas of the organisation, that need to be considered in developing the system, under three broad headings. The headings are 'broad policy elements', 'operation and control of the quality system', and 'business operation'. In the Australian VET sector, some examples are: the National Centre for Vocational Education Research has been endorsed as meeting the ISO 9001 standard; Whyalla College of TAFE has embarked on a quality process aimed at achieving AS 3901 accreditation (*Signposts to quality* p. 45ff.); so has the Gold Coast Institute of TAFE (*Signposts to quality* p. 30ff.).

## The quality matrix

A quality matrix 'provides the framework for quality initiatives and breaks complex improvement strategies into achievable parts' (*Quality in action*, p. 3). To achieve this, a quality matrix shows an organisation's plans for change in the form of a diagram. 'It encapsulates what quality means for the organisation and identifies fundamental imperatives for change' (*Quality in action*, p. 11). Put simply, a quality matrix is a two-way grid. On one axis it sets out a number of areas on which the quality initiatives will focus. On the other axis it contains levels or stages which, cutting across the quality areas, represent levels or stages of achievement for which target dates can be set. For example, in 1994 the NSW TAFE Commission launched its Quality Strategy which centred on a quality matrix with seven areas of focus for quality initiatives and six levels of achievement.

The seven areas of focus for quality initiatives were 'customer focus', 'leadership', 'creative involvement of staff', 'planning', 'internal co-operation and communication', 'process improvement in support of teaching/learning', and 'systematic use of information'. In the basic quality matrix, each cell contained a descriptive indicator of what achievement of quality in the

particular area at the specified level would look like. For instance, in the area of customer focus, the descriptive indicator at the lowest level was:

> *TAFE NSW staff have limited understanding of what customer service involves for an education and training organisation.*

At the highest level in the area of customer focus, the descriptive indicator was:

> *Customers are powerful ambassadors for TAFE NSW.* (Quality in action Appendix I, p. 111)

Taking account of the interrelated nature of the areas of focus for quality initiatives, appropriate target dates could then be set for the various levels under each area. It should be noted, however, that the matrix only specifies what changes are needed to occur, not *how* they will occur. Thus a quality matrix on its own merely provides a broad framework for more specific and focused quality initiatives within an organisation.

The *Quality in action* report finds that 'the very nature of the matrix as a planning tool for a quality strategy makes it relevant right across the VET sector', though its implementation 'should be considerate of the specific cultural aspects of each organisation' (p. 26). So it seems that the quality matrix can be expected to be widely used in the Australian VET sector.

## Best practice and benchmarking



Best practice and benchmarking go together and, on the basis of the literature review undertaken for the writing of this report, they are easily the most popular approaches to quality assurance so far adopted in the Australian VET sector. Internationally, best practice 'refers to the way in which leading-edge companies are able to manage and organise their operations to deliver world-class standards of performance in such areas as cost, quality and time loss' (*Signposts to quality* p. 88). It involves comprehensive changes in corporate culture, particularly in the ways managers and employees work. This is so because there is an 'emphasis on the development of a bottom-up system focusing on the experience, skills and competencies of all people in the organisation.' This requires much more flexible and adaptive approaches to managing and carrying out work.

Benchmarking 'is concerned with internal and external measurement of performance against standards of world best practice' (*Signposts to quality* p. 89). Clearly the first requirement is to have a sound internal benchmark of current performance against which any improvements can be measured. Once this is done, benchmarking can be carried out internally or externally.

There are four main categories:

- Internal—*seeking out and replicating examples of best practice within an organisation. For example, across branches, within branches, over regional territories.*
- Competitors—*Investigation of direct competitors. For example, comparing Ford with Holden.*
- Industry—*Comparison with non-competitors in the same industry. For example, domestic airlines operating in different countries.*
- Generic—*Comparison with organisations outside own industry. For example, comparing reservation procedures at Sheraton Hotels with those used by Qantas.* (Quality in action, pp. 63–64)

It is common for organisations to start with internal benchmarking and then move on to comparisons with non-competitors in the same industry. 'Generic benchmarking is by far the most complex and least practised in Australia' (*Quality in action*, p. 64). There is a further important distinction between benchmarking activities that focus on numbers and those that focus on processes, i.e. between *performance* benchmarking and *process* benchmarking. These can be characterised as follows (*Quality in action*, pp. 64–65):

*Performance benchmarking*, or scoping, compares high level aggregated measures of performance, such as profit margins, sales per employee, cycle times, return on investment.

*Process benchmarking* compares aspects of discrete business processes, such as how a product is produced, how customers complaints are handled, how a billing system operates.

The *Quality in action* report (p. 83) concludes that the 'VET sector lends itself to a wide variety of benchmarking approaches' and it also provides recommendations and advice on the implementation of such approaches. As already noted, ANTA has initiated performance benchmarking at the system

level (ANTA 1995). This will be used increasingly to compare performances of the various providers in the VET sector.

As well, the literature review undertaken for the writing of this report produced a range of VET projects, mostly at the sub-system level, that involve best practice and/or benchmarking. (These include Montague & Evans 1996, Robson 1995, Anderson 1996, Whittingham 1994, New South Wales Board of Vocational Education and Training 1994, Hampton 1995, Leroux 1993, Grosse & Pugh 1995, Anstas & Casey 1996, Barnett 1995, Bishop et al. 1995).

On the face of it, this is a lot of research on best practice and/or benchmarking. However, some caution is in order. Analysing the case studies collected in Moy (ed.) (1996), Misko (1996 p. 91) noted that 'a more pragmatic and personal interpretation of best practice' was apparent. In fact it is evident that in those case studies the respondents generally interpret 'best practice' to mean 'what our organisation does well'. Hence, any connection with benchmarking is at best tenuous. In 1992, commenting on the state of quality implementation in Australian industry, Macneil et al. (1992) found that while the practice of benchmarking was both widespread and increasing, most of the activities were at a fairly unsophisticated level.

Given that the VET sector is now in the early stage of quality implementation, it is only to be expected that the Macneil et al. comment is applicable to that sector at the moment. The *Signposts to quality* report's conclusion about benchmarking (p. 10) supports this view: 'There is insufficient data to draw many meaningful conclusions on benchmarking. This aspect requires further investigation.' Overall, despite the relatively high level of interest in the VET sector, both best practice and benchmarking require much more work to test their value to this sector.



## Self-managed teams

Self-managed teams represent a quality management approach in which the work team assumes full responsibility for all aspects of its work, including the processes and the contribution that each team member makes to the processes. According to the *Quality in action* report (p. 31) 'there is no such thing as a typical self-managed team. Every team is unique and reflects the nature of the work and output, as well as the structure, culture and values of the organisation.'

However, there are common characteristics shared by all self-managed teams (*Quality in action*, pp. 31–32).

- The self-managed team is an autonomous group of workers responsible for a total process or sub-process producing a product, service or project for a customer.
- The self-managed team mostly has between five and fifteen members.
- As well as performing their day-to-day work, self-managed team members take on responsibilities usually reserved for management.
- The self-managed team changes the way work is both organised and performed. Multi-skilling, job enlargement and enrichment often go hand-in-hand with self-management, as team members share roles and assume managerial responsibilities.
- The self-managed team is highly autonomous and has the authority to solve problems, make decisions and take action. In short, team members are fully empowered to manage themselves and the work they perform.

As the case studies in the *Quality in action* report demonstrated, self-managed teams 'may not be appropriate to every work situation' (p. 36). Research literature together with the case studies suggest that 'self-managed teams have significant potential:

- if the process is complex
- if there is a high level of interdependence between three or more people
- if the process has a large labour input
- if the people are involved in fairly similar activities—that is, it is possible for the workgroup to share a common goal'. (p. 37)



Dumaine (1990 quoted in *Quality in action*, p. 37) suggests that industries which are more suited to self-managed teams include: automotive, chemicals, steel, paper, insurance, banking, telecommunications, health, hospitality and education. However, it is also clear that self-managed teams are not suited to all work situations, even in the industries just listed. Cases where self-managed teams are not appropriate include:

- those where work is 'so simple that sharing roles and responsibilities would not add anything to the productivity and flexibility of the group.' (*Quality in action*, p. 55).

- those where work is complex and jobs are highly specialised making it difficult for people to learn one another's jobs and take on new responsibilities. Thus, self-managed teams may not be suited to 'areas like research, policy and finance.' (*Quality in action*, p. 55).
- those where quality management is a concept in the early stages of its implementation. It appears that self-managed work teams arise more effectively and naturally in organisations where employees have a history of involvement in quality initiatives. (See *Quality in action*, p. 55).

One of the case studies in *Signposts to quality* is the Gold Coast Institute of TAFE which, as the main focus of its quality initiative, has set up self-managed work teams. Although it is still very early in the implementation of this quality initiative, it is claimed that 'the establishment of self-managed teams has resulted in a dramatic increase in productivity and job satisfaction for all staff' (*Signposts to quality*, p. 91). Given this, it is no surprise that the *Quality in action* report (p. 54) concludes that:

> *Self-managed teams are relevant right across the vocational education and training sector: from large public providers to small private providers; from people in central offices to front line college staff; from teachers and curriculum developers and designers to administrative and support staff. However, every VET organisation will have sections that are suited to the team approach to work and others that are not. The issue then becomes identifying those parts of the organisation where teams will work best . . . It would be inappropriate for senior managers to make the decision that from a certain point in time all staff will work in self-managed teams.*



Given these findings, it is disappointing that the literature review undertaken for the writing of this report failed to bring to light any other research studies of self-managed teams in the Australian VET sector.

## Process re-engineering

Process re-engineering is a much discussed approach to quality that, rather than looking at gradual improvement of current processes, proposes that they be discarded and the business re-invented from scratch in a form that is suited to the present era. The *Quality in action* report (p. 91) characterises this approach as follows:

> *Re-engineering is needed to make large clumsy organisations (structured in*

*terms of simple tasks and complex tracking mechanisms) more like small, flexible and integrated ones. In short, the purpose of re-engineering is to reunify tasks into a coherent business process and structure the organisation in ways which best add value for the customer.*

However, the *Quality in action* report also states that the 'jury is yet to return its verdict on whether re-engineering is a worthwhile quality tool, or just another management "fad". . .' (p. 89) While not dismissing re-engineering entirely, it cautions VET organisations that may be considering this approach that it 'is a costly quality management practice which has a very high failure rate' (p. 108). On the evidence of the literature review undertaken for this report, process re-engineering has had only limited application in Australian organisations. Given that the review also failed to find any research studies of this approach being tried in the Australian VET sector, there is no need to say any more about this approach here.

## Concluding comment

Although the above brief characterisations of the types of quality program are broadly accurate, it is noteworthy that even within the relatively small Australian literature on quality assurance in VET, which is the focus of this report, there are sometimes small but significant differences in how different authors define the same type of approach. Thus it should not be assumed automatically that, e.g., all approaches self-described as 'best practice' or 'benchmarking' are identical in their principles and practices.

# Research on implementing a quality program

As indicated previously, the introduction of formal quality assurance systems into the VET sector is fairly recent. This means that the available research is rather limited. What research there is consists mostly of case studies of quality assurance systems from outside of the VET sector in order to assist in selection of suitable systems for that sector, or developmental research projects centred on piloting the introduction of some quality assurance measure to some part of the VET sector. A large number of such projects are either due for completion or are near to completion. Some of these projects are referenced in this report, as it is anticipated that they will be of significant interest to the reader (e.g. McEwan & Stenson 1995, Stewart 1995, *Signposts to quality* 1994, p. 25ff). From the available literature dealing with the implementation of quality assurance in the VET sector, the following are issues that need to be addressed. These issues are mainly based on the experiences of the ten case studies covering manu-facturing and service industries, universities and TAFE colleges reported in *Signposts to quality*.

## Personnel requirements for effective quality implementation



For quality implementation to work in an organisation, it is vital that the chief executive officer and senior management are fully committed to the process and are involved in such a way that they are seen to be driving the process. It is also important that the process is managed by someone who is committed to the organisation, has a thorough knowledge of the system, and is a 'true believer' in quality.

## Planning the implementation

An effective planning process is vital to the implementation of a quality system. A staged plan that includes a realistic budget is recommended. Quality initiatives include a significant cost for their effective implementation.

This includes convincing staff to become committed to the quality initiative and informing customers about its significance for them. All of the case studies in *Signposts to quality* that set time-frames for the implementation of their quality system found that it typically took longer than expected. Although a number of the case studies found the use of consultants helpful in the early stages, it was important that their efforts were tailored to the culture of the particular organisation. Buying generic quality packages or systems from consultants was not recommended.

## Staff development programs

Convincing staff to become committed to the quality initiative requires effective staff development programs. It is crucial that staff feel that they have significant ownership of this staff development process. In hindsight, most of the case studies in *Signposts to quality* felt that they should have paid even more attention to this issue. Research by Frew (1994, 1996) points to the strength of the entrenched culture of the VET sector. He argues that staff development programs aimed at introducing quality initiatives will need to build on that culture if they are to be effective. The case studies in *Signposts to quality* also emphasised the importance of early and comprehensive staff development for middle managers. This group has been found to feel threatened by quality initiatives, as they perceived that their role in the organisation was being undermined. This was particularly the case in organisations that were being restructured at the same time as a quality program was being introduced. This is a not unlikely situation in the VET sector.



## Industrial relations and HRM issues

Effective introduction of a quality program requires the involvement of all stakeholders including unions. Some of the case studies in *Signposts to quality* also rewarded staff for their efforts in the quality initiatives. These included staff dinners, magazine articles highlighting achievements, and staff awards. A number of the case studies introduced quality elements into performance agreements, job descriptions, contracts, and enterprise agreements.

## Ascertaining customers' views and needs

In all of the case studies in *Signposts to quality* the customer was the focus of the quality initiative. This means knowing who the customers are, finding out their needs and expectations, gaining regular feedback, and acting on this to improve the service. McGrath and Ball (1995) provides an example of this kind of research and its application to quality improvement from a global perspective in a large VET organisation. Grosse and Pugh (1995) provide an example of a micro application of the same basic ideas to a single VET course.

## Monitoring, assessment and evaluation procedures

Since all quality approaches aim to identify and improve systems, processes and procedures that are inefficient/ineffective or are not producing the desired outcomes, there is a need to establish feedback loops that monitor systems, processes and procedures. The role of such monitoring was stressed in some of the case studies in *Signposts to quality*. This involved either the setting up of suitable information systems or the revision of existing information systems.

Ultimately, quality systems measure outcomes. The non-manufacturing case studies in *Signposts to quality* found that measuring their outcomes qualitatively and quantitatively was difficult. Nevertheless this has to be done in ways that are statistically based and have a customer focus.



Finally, despite the earlier caution about the time needed to implement a quality system, a number of the case studies referred to the importance of early visible results. It was found that this was an effective way to demonstrate the value of a quality system and to increase staff awareness and commitment.

# Lessons from the VET case studies

GIVEN THAT WE are in the early stages of quality initiative implementation in Australian VET, the lessons that can be drawn from the research so far are relatively meagre. In the VET sector itself, there are case studies of quality measures implementation for both whole institutions and for more specific programs. The more global case studies deal with:

- whole organisation TQM initiatives (McEwan & Stenson 1995, *Signposts to quality* 1994, p. 25ff)
- whole org..nisation assorted quality initiatives (*Signposts to quality* 1994, p. 19ff., p. 30ff., 35ff., p. 40ff., 45ff.)
- introducing teachers/trainers to benchmarking (Montague & Evans 1996)
- best practice in office skills in a state system (Stewart 1995)
- customer needs/satisfaction survey (McGrath & Ball 1995)

The two TQM projects are in their very early stages, so that the documents are more about what is proposed to be done and why, rather than a report of what has been learnt from implementing a whole organisation TQM initiative. The other assorted whole organisation quality initiatives are also in their very early stages with the focus being on getting started. The most advanced initiative appears to be the self-managed work teams at the Gold Coast Institute of TAFE which was discussed earlier in this report. At least this case study confirms the suitability of self-managed teams for some parts of the VET sector, though it would be useful to have this confirmed further by similar success in some other VET sector organisations.

Perhaps the main lesson to be learnt from all of these whole organisation quality initiatives is the difficulty of getting started on an organisation wide basis. It appears to be common for a small number of staff to have been

working on the quality initiative for years without the organisation as a whole being moved very far at all.

Perhaps some of the difficulties experienced in starting up on an organisation wide basis are reflected in the project introducing teachers/trainers to benchmarking. Montague & Evans (1996) aimed to trial process benchmarking in educational delivery in VET institutions. Thirty four participants from a representative range of the VET sector attended a training session on benchmarking and then took part in at least one of ten 'benchmarking events'.

At these workshop 'events' participants sought to apply process benchmarking to a problem or issue that they chose themselves. The project had no scope or resources to follow up on what happened after that. The authors concluded that it was a very positive staff development exercise and that the participants would be more ready to take part in future change initiatives. However they also acknowledged that any changes 'implemented by these teachers shortly after the benchmarking events are in themselves small' (Montague & Evans 1996, p. 61). Further, they concluded that what was achieved was not really benchmarking since too many of the 'essential constituents' of process benchmarking were absent. Overall this pilot project served to emphasise the magnitude of the task of introducing large scale quality initiatives.

Like the organisation wide quality initiatives, the best practice in office skills in a state system project (Stewart 1995) is in its preliminary stage with the collection of a range of data in process. The customer needs/satisfaction survey (McGrath & Ball 1995) surveyed students at nine colleges located in three institutes of the TAFE NSW system on their needs, preferences and expectations. The prime aim is that this information will be used by the various colleges 'as a starting point for the targeting and developing of quality improvement projects and action plans' (McGrath & Ball 1995, p. 1).



The more global case studies represent a start, but in most cases there is a long way to go before major outcomes will be evident. In the meantime, each project is no doubt having its own local impact and increasing quality levels within the VET sector.

There are also case studies of quality measures implementation aimed at more specific programs. These include:

- performance on teaching and learning (Peoples 1996)
- course maintenance (Worsteling (ed.) 1995)
- flexible delivery (Anderson 1996)
- best practice in an AVTS work-based pilot program (Grosse & Pugh 1995)
- best practice in ITABs (Leroux 1993)

These projects serve as examples of specific quality initiatives in the VET sector. They will no doubt lead to many more similar projects. They also reflect the wide scope for specific quality initiatives in the VET sector since there is not much overlap between any of these particular projects. It is difficult to arrive at any cross case study comparisons or conclusions.

The difficulty in drawing many definite conclusions from the research discussed so far in this section is due to a combination of three factors: the diversity of approaches to quality in the VET sector, the diversity of targets to which the quality measures have been applied and the very preliminary nature of most of the projects.

Not surprisingly, the diversity of approaches to quality in the VET sector is also apparent in industry. In a series of major studies of the factors that influence decisions about training, Smith et al. (1994), Noble et al. (1996) and McIntyre et al. (1996) developed case studies that cover a diverse range of enterprises across five industries. They found that 'quality has different meanings in different industries, and the approach varies greatly across enterprises' (McIntyre et al. 1996, p. 62). In order to make some sense of this diversity, they usefully suggest that three levels of quality initiatives in enterprises need to be distinguished. These are:



- *Level 1:* Awareness of need for quality (i.e. quality considered in response to other initiatives e.g. training, new products)
- *Level 2:* Specific quality initiatives (i.e. single quality programs e.g. customer service, product finish, quality control)
- *Level 3:* Integrated quality initiatives (i.e. pervasive initiatives e.g. Total Quality Management, ISO 9000 accreditation)

Their research found that quality was one of the most important drivers of training. In the case studies for the construction, electronics manufacture, and

food processing industries, many enterprises were undergoing Level 3 quality initiatives, while most of the remainder, particularly in the construction industry, were at Level 2. In the case studies for the retail and finance and insurance industries, 'customer service' was an important driver of training in all of the enterprises studied. However, Level 3 quality initiatives were not pursued in most of these enterprises.

Since these industries by and large are supposed to be further advanced in quality initiatives than the VET sector, the ambitious nature of the progress so far in the VET sector is evident. Much of the work discussed in this report is at Level 3 though, admittedly, mostly in preliminary stages. Quite a bit of work is occurring at Level 2 and this will only increase.

The industry research also made another interesting observation about the popularity of training courses in quality:

Training for quality is often focussed on shop floor employees and delivered on-the-job. This makes the training relatively short, sharp and cheap for enterprises—one reason why it is so popular with managers who perceive a high, potential return from relatively modest training outlay. (McIntyre et al. 1996, p. 63)

This statement assumes the permanence of a hierarchical model of work organisation. One lesson from the quality initiatives so far in the VET sector is that they severely challenge these traditional hierarchies, e.g. widespread use of self-managed teams is likely.

# Findings and directions for further research

## Findings

WHILE IT IS too early to be definitive about these matters, the most promising quality programs for the VET sector appear to be quality assurance, best practice and benchmarking, and self-managed teams. The quality matrix and TQM are other likely possibilities. Because of the recency of the introduction of formal quality programs into the VET sector, there is not much detailed sector-specific advice to guide the introduction of new quality programs. However, *Quality in action* provides general implementation advice for each of the main quality programs.

A major change, possibly the major change, over the last five years in the VET sector is the growing interest in quality management practices. This surge in interest in quality is now being stimulated further by ANTA policies. However research on these matters is still at a very preliminary stage. This is only to be expected. As the Australian Quality Council is fond of reminding us, 'quality is a journey, not a final destination'. Amongst other things, this implies that the timing of the adoption of some particular approach to quality is vital.

> *'The quality principles and practices used by an organisation are never static; they are always evolving. With the exception of the quality matrix, the practices examined were introduced only when organisations were fairly well advanced in their quality initiatives'.* (Quality in action *1995, p. 3)*



Most of the research so far in the VET sector is developmental rather than evaluative, i.e. it is concerned with the business of setting up quality assurance measures rather than with judging how well they are operating. As the VET sector moves further along its quality journey, there will be a need for more critical research to evaluate progress. Until then our understanding of the state of this field is still very limited.

## Directions for further research

Given that we are in the early stages of quality initiative implementation in Australian VET, there are no areas where it can be said that no more research is needed. However, some priorities can be suggested. These include:

- ways of effectively initiating organisation wide quality initiatives in the VET sector
- 'best practice' applications of best practice and benchmarking in the VET sector
- uses of self-managing teams in the VET sector
- evaluative studies of quality initiatives in the VET sector, particularly those that have become established

It has been very noticeable in this review that nearly all of the research is on the publicly funded component of the VET sector. In an era where competition within the sector is being promoted, research on quality needs to take in the whole sector.

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This review of research on vocational education and training is one of a series of reports commissioned to guide the development of future national research and evaluation priorities.

Paul Hager has reviewed quality assurance in vocational education and training over the past six years. He draws conclusions relevant to policy in the VET sector and identifies areas for further investigation.